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09/867,303	05/29/2001	Sarat C. Manni	207197	6147

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EXAMINER

BASOM, BLAINE T

ART UNIT	PAPER NUMBER
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2173

DATE MAILED: 05/06/2004

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/867,303

Applicant(s)

MANNI ET AL.

Examiner

Blaine Basom

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

Claims 1 and 10 are objected to because of the following informalities: In claim 1, the phrase, "and a area" is objected to for being grammatically incorrect. Similarly in claim 10, the phrase, "on of the actions" is objected for being grammatically incorrect. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 3, there is no antecedent basis for the "second button," as there is no recitation of a first button in claim 3 or claim 1, upon which claim 3 depends. By similar reasoning there is no antecedent basis for the "fourth button" recited in claim 5, the "fifth button" recited in claim 6, and the "eighth button" recited in claim 10. As claims 4, 7-9, and 11-13 depend on either claim 3, 5, 6, or 10, and include all of the limitations of claim 3, 5, 6, or 10, claims 4, 7-9, and 11-13 are similarly rejected for these reasons.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the “Universal Plug and Play Device Architecture” document, which is cited in the Applicants’ IDS of 5/23/2003, and also over U.S. Patent No. 6,272,537, which is attributed to Kekic et al. (and hereafter referred to as “Kekic”). In general, the Universal Plug and Play architecture document describes Universal Plug and Play (UPnP), an architecture describing the network connectivity of various types of appliances, wireless devices, and personal computers (see the section entitled “What is Universal Plug and Play?,” beginning on page 1). UPnP incorporates Internet components to provide protocols by which a control point discovers, controls, and displays features of such devices (see pages 1 and 2). This control point comprises a browser by which it retrieves and displays a “presentation page” for a particular device, this presentation page being created by the vendor of the device, and providing means to control and display the status of the device (see Section 5, starting on page 60). Consequently, such a control point is considered a display device having rendered thereon a user control point tool for controlling and displaying UPnP devices.

Specifically regarding claims 1-3, the above-described control point may initiate a discovery process to discover devices on the particular network with which it is associated (see section 1.2 beginning on page 12). This discovery process may involve one of a plurality of

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discovery options, such as searching for all devices on the network, searching for root devices only, searching for a particular device, or searching for a particular type of device on the network (see section 1.2.2 beginning on page 13).

As per claim 4, the above-described control point may further retrieve a device description from a discovered device. This device description comprises a plurality of data fields containing device property information for the device (see section 2, beginning at the bottom of page 15). For example, such data fields may specify the type of the device, the manufacturer of the device, and the model name of the device (see section 2.1, beginning on page 17).

In reference to claim 5, the above-described device description additionally comprises a presentation URL for a presentation page associated with the device (see section 2.1 beginning on page 17). This presentation page, which is described above, is accessed and displayed using a browser to connect to the presentation URL (see section 5, beginning on page 60).

Regarding claims 6-13, the device description described above further comprises a plurality of fields denoting the one or more services associated with the particular device (see section 2.1 beginning on page 17). For each service, the device description comprises a URL which links to a description of the service (see section 2.1 beginning on page 17). This service description comprises a list of all the state variables associated with the particular service (see section 2.3, beginning on page 21); the control point may query the device to ascertain a current value of one or more of these state variables (see section 3.3, beginning on page 43).

Additionally, the service description comprises a list of all the "actions" for the particular service, and for each action, a list of all the arguments associated with the action (see section 2.3,

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beginning on page 21). The control point may invoke one of these actions, whereby in response, the device returns to the control point the results of the action (see section 3.2.2 on page 40).

In summary, the UPnP architecture document teaches a control point having rendered thereon a presentation page for controlling and displaying a particular UPnP device, the device being one of a plurality of different types of devices (for example, see section 5 beginning on page 63). However, such a presentation page is created by the particular vendor of the device, for the particular device (see section 5 beginning on page 63). Such a presentation page is therefore not a *generic* user control point tool, as recited in claim 1. Additionally, the UPnP architecture document does not explicitly describe user interface features for discovering and controlling such devices. Thus, although the control point may initiate a discovery process, as is described above for example, the UPnP architecture document does not explicitly teach a field for displaying discovery options, an area for initiating a discovery process, and a devices found display field, as are described in claims 1-3. By similar reasoning, the UPnP document does not teach a device properties display, as is described in claim 4; the UPnP document does not teach a button for viewing a presentation page, as described in claim 5; the UPnP document does not teach service display field, like recited in claim 6; the UPnP document does not teach a service description link display field and view button, as recited in claim 7; the UPnP document does not teach a query variable field, like described in claim 8; the UPnP document does not teach a button for querying the value of a state variable, like described in claim 9; the UPnP document does not teach an invoke action field, like described in claim 10; the UPnP document does not teach an action argument field, like described in claim 11; the UPnP document does not teach a

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button for invoking an action, like recited in claim 12; and the UPnP document does not teach an action out argument field, like expressed in claim 13.

Like the UPnP document described above, Kekic describes a control point used to discover and control each of a plurality of devices existing in a network (for example, see column 6, line 50 – column 7, line 19). This control point accesses and displays an “element manager,” which like the presentation page described above, is created by the particular vendor of the device for the particular device (see column 6, lines 37-49), and provides a graphical user interface to view the status of, and invoke actions on, the particular device (see column 5, line 25 – column 7, line 14). As such an element manager is created specifically for the particular device, the element manager is not considered a *generic* user control point tool. However, Kekic further discloses that the control point comprises an “auto discovery panel” and an “MIB browser” (see column 22, lines 33-52; and column 43, lines 14-55), which are not specifically associated with any device, and which for the following reasons, are considered to constitute a generic user control point tool for discovering, controlling, and displaying network devices. Kekic particularly discloses that a user of control point may implement the auto discovery panel to initiate a discovery process to search for devices on a particular network, whereby like the UPnP architecture described above, this discovery process may involve one of a plurality of discovery options (see column 43, line 15 – column 45, line 17). For example, as is shown in figure 27, the auto discovery panel comprises a “Limited Search” field, designated by reference number 2703, which is for displaying such discovery options (see column 43, line 46 – column 44, line 57), and a “Discover” button designated by reference number 2706, which is for initiating the discovery process (see column 44, lines 58-66). This field for displaying discovery

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options particularly comprises a first button, designated by reference number 2704, which is understood to be for displaying available discovery options from which to choose (see column 43, line 46 – column 44, line 57). Any devices found by the discovery process are displayed in a devices found display field, called a “navigation tree” (see column 45, lines 5-17). Such a navigation tree may comprise a second button, specifically a “plus” button, the selection of which is understood to result in the expansion of the tree and the subsequent display of all discovered devices (for example, see column 23, lines 26-50). Upon selection of a device in the navigation tree, the user may select a third button to open an MIB Browser (see column 51, lines 43-54). This MIB Browser is used to access and display an “MIB file” of the device (see column 51, line 43 – column 2, line 45), whereby like the device description and service description provided by a UPnP device, this MIB file maintains device property and status information, and is used by the control point to invoke actions on the device (for example, see column 2, line 20 – column 4, line 49). Consequently, the MIB browser, which displays an MIB file, is considered a device properties display. Alternatively, the user may select a discovered device, and if an element manager exists for that device, the graphical user interface of the element manager is displayed (for example, see column 21, line 33 – column 23, line 2). As described above, such an element manager is analogous to the presentation page described in the UPnP document, and consequently, Kekic is considered to present a button like the “fourth button” recited in claim 5. Referring again to the MIB Browser, Kekic discloses that it is used to access and display an MIB of a remote device (see column 22, lines 33-52, for example), which as expressed above, is comparable to the device and service description maintained and delivered by a UPnP device. Kekic teaches presenting user interface features within this MIB Browser to select, access,

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display, and set MIB variables. For example, the MIB Browser comprises an MIB File field having a button for displaying all the MIB files for the selected device (see column 51, line 49 – column 52, line 6). In response to selecting one of these MIB files and selecting a “Load” button, an “MIB Tree” field displays the MIB file, which comprise variables describing the selected MIB file (see column 51, line 62 – column 52, line 7). The user may query the value of one of these variables by selecting the variable and then selecting a “Get” button (see column 52, lines 12-22). In response, the result of the query is displayed in a “Result” field (see column 52, lines 12-22). Similarly, the user may set the value of a variable by selecting a variable within the MIB tree, entering a value within a “Set Value” field, and selecting a “Set” button (see column 52, lines 31-45). In response, the result of the set operation is displayed in the Result field (see column 52, lines 31-45).

It would have been obvious to one of ordinary skill in the art, having the teachings of the UPnP document and Kekic before him at the time the invention was made, to modify the control point taught by the UPnP document to include the auto discovery panel, MIB browser, and navigation tree of Kekic, the auto discovery panel, MIB browser, and navigation tree being adapted to discover and control UPnP devices. In other words, it would have been obvious to include a field for displaying discovery options, an area for initiating a discovery process, and a devices found display field, like is included in the discovery panel and navigation tree of Kekic. Similarly it would have been obvious to include a device properties display, like the MIB browser of Kekic, and a button for viewing a presentation page, as also taught by Kekic. It would also have been obvious to include a field, like the MIB file field of Kekic, display and choose and service. It would have been obvious to include a Load button, like that of Kekic, to

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access and display a description of the service. It would have been obvious to include fields, like the MIB Tree field of Kekic, to display and choose a state variable to query and to display and choose an action to invoke. It would have been obvious to include a Get button, like presented by Kekic, to query the value of a state variable. It would have been obvious to include a field, like the Set Value field of Kekic, to enter arguments for an action, and it would have been obvious to include a button, like the Set button of Kekic, to invoke an action. Lastly, it would have been obvious to include fields, like the Result field of Kekic, to display the results of querying a state variable or invoking an action. It would have been advantageous to one of ordinary skill to utilize these combined teachings of the UPnP document and Kekic, because such a discovery panel, MIB Browser, and navigation tree provides a user interface for discovering and controlling network devices, even if the vendor of the network device does not provide an interface to control the device, as is demonstrated by Kekic.

The above-described control point described by the UPnP device document and Kekic is considered to teach a method like that recited in claims 14-26. For example, and specifically regarding claim 14, the combination of UPnP and Kekic teaches receiving a discover type selection signal within a field analogous to the "Limited Search" field of Kekic, the selection signal indicative of a user selecting one of a plurality of discover types. The above-described combination similarly teaches receiving a start discovery selection signal, via a button similar to the "Discover" button of Kekic, the start discovery selection signal indicative of a user selecting a start button on a window. In response to such actions, a UPnP discovery process is initiated.

As per claim 15, the UPnP document teaches that the discovery process may involve searching for UPnP devices of a particular type, as is described above. Consequently, as Kekic

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teaches implementing drop-down list boxes, like the "Limited Search" field described above, which is for displaying and choosing search options, it is understood that this combination of UPnP and Kekic teaches a drop-down list box to display and choose a particular device type for which to search. Thus with such a list box, the user instigates a find by type menu display selection signal, whereby in response, the list box displays a selectable list of UPnP device types. The user may choose one of these device types, and thus the discovery process is for UPnP devices of the selected UPnP device type.

Regarding claim 16, Kekic discloses that the user may enter a unique device name into an "IP Address" field, whereby the discovery process involves searching for a device of the entered name (for example, see column 43, lines 46-55). Analogously, the UPnP device document teaches that the discovery process may involve searching for a device having a particular unique device name, as is shown above. It is therefore understood that this combination of UPnP and Kekic teaches a field for receiving a unique device name, whereby a process for discovering devices on a network entails a discovery process for a UPnP device having this unique device name.

With respect to claim 17, the above-described combination of UPnP and Kekic teaches displaying, in a field similar to the navigation tree of Kekic, a selectable list of UPnP devices discovery by the discovery process, and receiving a device selection signal indicative of a user selection of one of these devices.

Concerning claim 18, the UPnP document teaches a presentation page associated with a UPnP device, which is displayed via a browser, as described above. Analogously, Kekic teaches instantiating a graphical user interface of an element manager associated with the UPnP device,

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this being done in response to selecting the device, as is described above. Consequently, the above-described combination of UPnP and Kekic is considered to teach receiving a view presentation selection signal in response to selecting a UPnP device, opening a web browser, connecting to a presentation page for the selected UPnP device, and displaying the presentation page on the browser.

In reference to claim 19, the above-described combination of Kekic and UPnP teaches receiving a display device properties selection signal, particularly in response to selecting a button like the MIB Browser menu button described by Kekic. Additionally, the combination teaches displaying device properties for a selected UPnP device in a display similar to the MIB Browser of Kekic.

As per claim 20, the above-described combination of Kekic and UPnP teaches displaying a selectable list of services, via a field like the MIB File field of Kekic, whereby the services are associated with a selected UPnP device and whereby the user may select one of the services.

In regard to claim 21, the above-described combination of Kekic and UPnP teaches receiving a view information signal indicative of a user selection of a view information button, which is analogous to the Load button of Kekic, and in response, displaying information for a selected service via a field similar to the MIB Tree field of Kekic. As taught by the UPnP document, such information may comprise linking information for a description of the selected service, as is shown above.

Concerning claim 22, the above-described combination of Kekic and UPnP teaches displaying a selectable list of state variables, via a field similar to the MIB Tree field of Kekic, the list of state variable being for a selected UPnP device. The user may select one of these

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variables, and via a button similar to the Get button of Kekic, transmit a query variable selection signal to initiate a query of the selected state variable. In response, the control point receives and displays a value for the selected state variable in a field analogous to the Result field of Kekic.

Concerning claims 23 and 24, the above-described combination of UPnP and Kekic teaches displaying a list of actions via a field similar to the MIB Tree field of Kekic, the actions being for a selected service. Additionally, the combination teaches receiving a user selection of one of these actions, and receiving an argument for the selected action in a field similar to the Set Value field taught by Kekic. In response to receiving an invoke action signal via a button similar to the Set button described by Kekic, the selected action is invoked.

Regarding claim 25, Kekic teaches that the graphical user interface for an element manager may display eventing information for a selected device (for example, see column 5, line 40 – column 6, line 6). It is therefore understood that the above-described combination of Kekic and UPnP teaches displaying eventing information.

As per claim 26, Kekic discloses that, during a network element discovery process, a “progress indicator” within a “Status Bar” of the graphical user interface indicates the progress of the discovery process (see column 44, line 58 – column 45, line 4). The above-described combination of UPnP and Kekic thus teaches displaying status information to aid a user in discovering and consequently controlling UPnP devices.

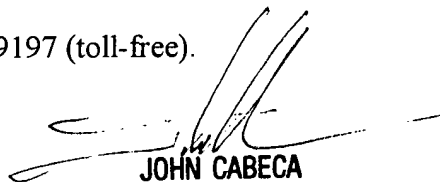
Conclusion

The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. The applicant is required under 37 C.F.R. §1.111(C) to consider these references fully when responding to this action. The Jalalian et al. U.S. Patent presents a method whereby a control point is able to select various services to be implemented by computers over a network. The Ludtke et al. and Humpleman et al. U.S. Patent cited therein each describe a user interface displayed on a control point, the user interface used to view the status of, and initiate one or more services on, a remote networked device. Similarly, the Danknick et al. U.S. Patent cited therein presents a user interface for selecting and controlling a remote network device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blaine Basom whose telephone number is (703) 305-7694. The examiner can normally be reached on Monday through Friday, from 8:30 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (703) 308-3116. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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SUPERVISORY PATENT EXAMINER
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